CONDITIONALS, FRANK JACKSON, AND THE ASSERTIBILITY THESIS

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Reasoning with indicative conditionals, i.e., natural language statements such as 'if the tickets are below Rs. 100, then they are affordable', constitutes a significant part of ordinary reasoning. How are we to proceed in the logical treatment of these statements and the arguments that they are involved in? In view of the fact that there are historically well-known differences between these and the material conditional (e.g. $P \supset Q$)[1], is standard truthfunctional sentential logic applicable to these, and if so, under what constraints ? In recent philosophy, proposed responses to this problem range over a wide spectrum[2]. Among these, the dominant view insists that indeed there are differences in indicative conditional and a material conditional; however, the differences are not differences in their truth-conditions. Typically, these theories would try to 'explain' these differences in terms of some supplemental attributes of the indicative conditionals. A noteworthy exemplar of this breed is Paul Grice's defense based on his theory of conventional and conversational implicatures, which has been discussed by the present author elsewhere[3]. The aim of this paper is to bring into focus yet another account in defense of the truth-functional analysis of indicative conditionals by Frank Jackson as to be found in his work *Conditionals* (1987)[4]. The present author contends that the truth-functionality of the indicative conditionals is not a defensible thesis, and that predictably the 'epicyclical' attempt at supplementation of that thesis usually ends up in causing more embroilment than satisfactory solutions. Within the scope of this paper, the effort will mainly consist in

arguing for some of the major inadequacies in Jackson's endeavor.

In his theory, among other things, Jackson has claimed that although an indicative conditional has the same truth-conditions as a material conditional, (i) it has a special 'assertibility' condition which is the same as its conditional probability; (ii) and it has a special conventional implicature because of a special linguistic goal that is ingrained in the use of 'if - then'. In what follows, my general aim is to show that Jackson has not been able to conclusively establish any of these. Specifically, I shall argue against (i) and (ii) that there is no adequate support for them in Jackson's own arguments.

<div align="center">I</div>

'Assertibility' is Jackson's coined term to denote the aspect of justifiability or warrantability of a statement. According to him, assertibility is about the espistemic justification of a statement; and that it, although closely similar, is not the same as assertability of a statement. The uncommon spelling with an 'i' of assertibility is to emphasize upon this difference. Assertability, he tells us, is a wider, pragmatic notion related more to the public assertion of a statement and it depends,

> ....not only on the justifiability of **what** is said that is, - on its
> assertibility-but also on a whole miscellany of 'local' factors
> pertaining to the **saying** of it... (J87, p. 11).

The fact that the following statement (1) is being uttered in a silent reading room is an example of such a 'local' factor, making noise not permissible in this case. This factor, Jackson holds, would make (1) unassertable under this particular circumstance:

(1) If I say that the battle of Hastings was fought in 1066, then I will say something true (J87,p.10).

Whereas in the same situtation (I) will still be assertible, i.e., will be a justified or warranted assertion. It follows that for 'assertibility', as opposed to 'assertability', Jackson wants us to concern ourselves only with

"justifiability of **what** is said" (J87, p. 11) and not with the circumstantial and subjectively important factors that might be present. The judgement of assertibility of a statement is crucial for our grasp of a language; for, he maintains:

> The aspect of a sentence's usage which tells us something about its
> meaning are the conditions governing when it is *justified or warranted*
> ... or, as this comes in degrees, to what extent it is justified to
> assert in various circumstances (J87,p.8, *italics* mine).

So, in order to ascertain the meaning of indicative conditionals also, he urges that first we need to look into their assertibility condition.

This assertibility condition of an indicative conditional, he claims, can be found in its conditional probability measure. Symbolically, he presents this identity as follows:

As $(A \rightarrow B)^5 = P(B/A) = $ df. $P(AB) / P(A)$, provided $P(A)$ # 0. (J87, p.11)

He calls this discovery of his "(Adams)" in recongnition of the major role played be Ernest Adams "...in promulgating it"[6].

How do we know that (Adams) holds? Here are some of the 'evidences' adduced by him (J87,p.12):

A. Case-by-case concomitance between assertibility and conditional probability: observations of actual uses of indicative conditionals supposedly show that any indicative conditional which is highly assertible is "invariably" (J87,p.12) also the one the consequent of which is highly probable given its antecedent. Some of his examples are:

(2) If unemployment drops sharply, the unions will be pleased (J87, p. 12).

(3) If I spend this afternoon trying to solve Fermat's last theorem, I will succeed (J87, p.12).

(2) is highly assertible, and the probability that the unions will be pleased

given that there is a sharp drop in unemployment is also very high. Similarly, (3) is a statement with very low assertibility; its conditional probability is also very low.

B. There is also evidence supposedly in our attitude towards 'divergent' conditionals, such as (A➜B) and (A➜~B), when A is consistent. We generally do not think it is right to assert, for instance, the following two statements both in the same breath:

(4) If it rains, the match will be cancelled.

(5) If it rains, the match will not be cancelled. (J87, p. 12-13)

Jackson claims that the fact, that we do not find conditionals such as these two both highly assertible, is because P(B/A) and P(not-B/A) cannot both be high at the same time when A is consistent. This, in his view, conforms nicely to (Adams); for by (Adams) we now have As (A➜B) =1 -As (A➜not-B), from the fact that P(B/A)= 1 - P(not-B/A).

C. Allegedly, there is also support of (Adams) in the fact that,

> ...by and large, an assertion of a conditional is a conditional assertion
> in the following sense: to assert 'If A, then B' is to commit oneself
> **ceteris paribus** to asserting B should one learn A. (J87, p. 13)

Jackson believes that his (Adams) also explains the fact that an assertion of a conditional is a conditional assertion "because....the probability of B given A is high just when learning A makes the probability of B high" (J87, p. 13).

None of these, I contend, counts as "evidence" as such for (Adams). Consider A, for instance, which tries to seek support for the merger of conditional probability and assertibility of indicative conditionals on the basis of a purported 'invariable' concomitance between the two. First of all, invariable concomitance of two items *a* and *b* does not nesessarily imply *a=b*. Moreover, in this case the claim of invariable concomitance is a questionable one. For,it is not necessary that every highly assertible indicative conditional will have a *correspondingly* high conditional

probability. Consider for instance the following:

(6) If humans are mortal, then someday the human race may become extinct.

As far as epistemic evidence is concerned, (6) is highly assertible; it is a highly justified statement given what we know about the human race, and some of their self-destructive, violent habits. However, it is not a statement with high conditional probability. The probability of 'someday the human race may become extinct' given that 'human are mortal' is not correspondingly high; there is no necessary connection here. Similarly, the high conditional probability of an indicative conditional does not automatically ensure its *correspondingly* high assertibility. Consider, for instance:

(7) If an American male is a convicted criminal, then he is black.[7]

Given the present statistics of crime in the United States of America, the conditional proability of (7) is high; it, nonetheless, is not a highly assertible or justifiable statement. The amount of fact gathered still does not warrent such a sweeping, biased generalization.

Also, this merger of conditional probability and assertibility condition of an indicative conditional may have undesirable consequences for Jackson's theory of conditionals. In assessing the case by case evidence for this concomitance, Jackson wants us to read an indicative conditional's conditional probability in the following manner.

> ...it is important to take the conditional probability of consequent given antecedent to be **defined** as the probability of the conjunction of the antecedent and the consequent divided by the probability of the antecedent, and not by the probability the consequent would get were the antecedent to become established truth (J87, p.12).

If (Adams) is true, as Jackson claims, then according to this reading of conditional probability two highly probable but independent statements in the if-then format can become eligible as assertible, i.e., justifiable assertions.

Take for instance the following:

(8) If 2+2=4, then Thailand is in Asia.

The probability of each of the antecedent and the consequent of (8) separately is high; their joint probability also will be high enough. The quotient obtained by dividing their joint probability by the probability of the antecedent will also be high. So, from Jackson's equation, the absurd conclusion follows that (8) is highly assertible. This result, howevre, is not only contrary to our beliefs about the justifiability of statements such as (8), but also runs counter to the kind of connection we commonly expect to hold between the antecedent and consequent of an indicative conditional.

As for B, Jackson's given explanation is faulty on several counts, First, it need not be the case with divergent conditionals that conditional probability of one will always be higher than the other. It is possible, for instance, to have in some cases equal conditional probability for $P(B/A)$ and $P(\text{not-}B/A)$. Consider for instance, the scenario of a coin toss with a fair coin, in which chances of a toss of head is just as much probable as a tail. In that case, the following two conditionals will have the same conditional probability; $P(B/A)$ and $P(\text{not-}B/A)$ both will be .5:

(9) If the coin is tossed, we'll get a head.

(10) If the coin is tossed, we'll not get a head.

In cases such as these, there is no support for Jackson's (Adams). For, according to Jackson's (Adams) both of these divergent conditionals ought to be equally assertible, we should be justified to assert both (9) and (10) in the form of a conjuction {'A→B' and 'A→~B'}. However, the fact remains that even in such cases we do not consider it right to assert both at the same time. Thus, Jackson's given explanation in terms of (Adams) is not adequate to cover all cases of divergent conditionals, when their antecedent is consistent. Second, Jackson's explanation in connection to B, while it sheds some light on our usual reaction to 'divergent' conditionals, does not provide us any compelling reason to endorse (Adams). For, it is possible to give an explanation of the ordinary speaker's reluctance to

assert both 'A→B' and 'A→~B' in cases such as (9) and (10) at the same time in terms of *assertability*. It is possible, for example, to maintain that the speaker does not find it right to assert both of them at the same time because he does not wish to sound stupid or inconsistent. Thus, even if for argument's sake we grant that Jackson is correct about the ability of (Adams) to explain our attitude towards the 'divergent' conditionals, then it can be said that (Adams) is *at best* only one of the ways to explain this attitute.

In C, Jackson appeals to what he calls our common intuition that "to assert If 'A then B' is to commit oneself *ceteris paribus* to asserting B should one learn A". The commonness of Jackson's claimed intution is doubtful; for, in some cases the commitment under *ceteris paribus* conditions (all things remaining the same) is not at all what we have in mind when we assert an indicative conditional. Consider this scenario: Suppose my friend and I are on a road trip, and at some point in time I tell my friend, who is driving, " If you drive too fast, you will get a speeding ticket here." Suppose also that soon I find out that she is driving way above the speed limit. That does not mean all things remaining the same I now necessarily have committed myself to reassert "you will get a speeding ticket here," even though I know that I have stated the above-mentioned indicative conditional earlier. No matter how justified I may be, out of decency, or discretion, I may simply not want to reaffirm the consequent.

II

Jackson has further claimed: (a) that the indicative conditionals have a special assertibility condition, namely, (Adams)) which the material conditionals do not have; (b) that indicative and material conditionals do not mean the same; and (c) yet they have the same truth-conditions. It is to be noted that usually different assertibility conditions for statements indicate different meaning, and consequently, different truth-conditions. For instance,

(11) All tall men are smart.
(12) Some men are tall and smart.

Clearly, the conditions under which each can be justifiably asserted are not the same. It is not a matter of coincidence that (11) and (12) also differ in their meaning and in truth-conditions. To claim, that an indicative conditional, in spite of its special assertibility condition (Adams), can still have the same truth-conditions as a material conditional, is to claim an exception to this usual rule. With the claim, therefore, also comes the responsibility of justifying how it is so that the case of indicative conditionals is an exception rather than the rule. Jackson's responses to this problem are rather sketchy. His main argument seems to be that the indicative and material conditionals fall among a few special cases in which truth-conditions of two statements remain the same despite their different assertibility conditions. His favored examples are statements of the form 'A and B' and 'A but B', which, he asserts:

> ...have the same truth-conditions, and hence the same
> probability of truth; yet it is not true that they always have
> the same assertibility. (J87, p. 9)

Two actual examples of these statement-forms would be:

(13) Jones is right for the job **and** he is our former employer's
    son.
(14) Jones is right for the job, **but** he is our former employer's
    son.

According to Jackson, the statements of the form 'A and B' are both true and false under identical circumstances. Yet, in English there is a special rule of assertibility 'but' which does not apply to 'and', consequently 'A and B' and A but B' do not mean the same. In (14), for instance, Jackson would argue that because of its special assertibility condition the use of 'but' indicates that being a former employer's son somehow discounts Jones' eligibility for the job; (13) does not indicate that. The same is the case, he contends, with indicative and material conditionals.

How can a statement have a different assertibility-condition than another statement with the same truth-conditions? In his attempt to explain,

Jackson traces the origin of the special assertibility-condition to the presence of certain words with special assertibility-condition in the statement. Thus, in essence, his answer is that a statement comes to have a special assertibility condition when it comes to have an additional linguistic goal[8] as a result of the use of certain words or expressions with special assertibility-conditions in the statement. These words or expressions, apparently, are endowed with special assertibility-conditions by linguistic conventions. For instance, he claims, in 'A but B' the presence of 'but' brings into the sentence, besides the goal of asserting the truth, the additional linguistic goal of "...warning the hearer of the imminent arrival of something that goes against the general drift of the conversation" (J87, p. 93). This "linguistic goal" supposedly is responsible for the special assertibility condition that 'A but B' has in comparison to 'A and B'. Similarly, he contends, the presence of the expression 'if-then' in 'if A then B' brings the additional goals of "easing the transfer of true belief and preparing the way for a justified use of Modus Ponens..." (J87, p. 98) to an indicative conditional. And apparently that is also why the assertibility-condition of an indicative conditional is different from its truth-condition.

The main point of this argument apparently is an analogical one. On the basis of a purported comparison, it basically makes the case of indicative conditionals a very special one supplemented with claims about imputed powers of special words with special liguistic goals. First of all, it is debatable whether 'A but B' has the truth-conditions of 'A & B" in spite of its special assertibility condition.[9] Second, indicative and material conditionals do not seem to have a whole lot in common with the 'A but B' and 'A and B' pair. If it is questionable that 'A but B' and 'A and B' have the same truth-conditions, then the only commonality between 'A but B' and 'A and B' and indicative and material conditionals appears to be the controversial point under discussion; namely, that 'A and B' and 'A→B' have special assertibility-condition. On the other hand, it is easy to find significant differences between them. For instance, one major difference is that 'A and B' and 'A but B' both, after all, are forms of statements

which belong to the same ordinary language. In contrast, our language does not contain statements of the form 'A ⊃ B'. Of the pair 'If A then B' and 'A ⊃ B', the former belongs to a natural language, whereas the latter to a formal language.

Also, this 'argument' assumes that somehow the nature of 'additional" linguistic goals of certain statements is casually responsible for the special assertibility-conditions which these statements have. How does a statement come to have an additional linguistic goal? According to Jackson, this happens when the statements contain some 'catalyst' words with special assertibility conditions. 'But', 'if-then', 'nevertheless,' 'or anyway', etc., are some of the words Jackson cites as examples of 'catalyst' words.

First of all, the claim of some *pre-defined* linguistic goals for certain statements in ordinary use is a highly controversial one. Rather, experience shows that the statements come to have such goals in the course of some sort of linguistic activity. As an assertion, a statment more often than not will be someone's assertion made somewhere within a specific liguistic context. The nature of the linguistic goal of that assertion will be determined with respect to these factors, not irrespective of them. If it is, for instance, the desire of the speaker to use it merely to state a fact, then the assertion will have the linguistic goal of simply desiring to tell the truth. If, on the other hand, the speaker intends it to use it with loaded implicature, then the goal of the assertion will not be mere transmission of a fact. In Jackson's explanation, there is no reference whatsoever to a possible speaker, or to his motives or to what the context might be, and what the contribution of all these factors might be for the formation of such a goal. From his explanation, these goals appear to be somehow ingrained in the use of certain words in statements, which are supposed to suddenly attach themselves to statements whenever certain words are used in them, and are most likely to disappear whenever these words are eliminated from the statement. There is no factual basis for supposing that a statement can have a "linguistic goal" on its own in abstraction from the context of its use, and as unattached to and apparently independent of what a speaker

may intend to convey by its use. The available evidence, on the other hand, points to the contrary. Consider for instance, one of Jackson's own examples: the assertion "Snow is white" (J87, p. 98). In his view, this assertion has the simple linguistic goal of telling the truth. Now consider, for instance, the following conversation:

A: Snow is so beautiful only because of its color.

B: What do you mean?

A: Snow is white.

The goal of A's last assertion 'Snow is white' presumably is also to convey by implicature some sort of a connection between the color 'White' and the beauty of a thing. Also, it is to be noted that in the above-mentioned instance of a conversation, A's assertion "Snow is white" seems to have complex linguistic goals *even though* it does not contain any of Jackson's special words.

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NOTES

1. For a brief introduction to and a critique of Grice's theory of Indicative conditionals, please see 'Grice's' Theory of Ordinary conditionals', C.Chakraborti, *Indian Philiosophical Quarterly,* Vol. XXIV, No.4, 1997.

2. For a closer look at the differences, to name a few, see Strawson (1974), David Lewis (1973), J.O. Nelson (1966), Stalnaker (1968), anford (1989), etc.

3. For an alternative perspective, see for instance Adams 1975, and also 'Some Remarks on Ernest Adams' Theory of Indicative Conditionals', C. Chakraborti, *Indian Philosophical Quarterly,* Vol. XXV, No.4, October 1998.

4. For the exposition of his theory, I have followed Jackson's book *Conditionals* (1987) which henceforth will be referred to as J87. Frank Jackson is a professor of Philosophy in the Research School of Social Sciences at Australian National University (ANU), and is the Director of Institute of Advanced Studies. His research covers Philosophical Logic, Cognitive Science, Epistemology and Metaphysics, and Meta-Ethics, and has several well-known papers in his research areas. He is the author of *Perception:A Representative Theory,* Cambridge University Press, 1977, reprinted in Gregg Revivals, 1994; *Conditionals,* Basil Blackwell, 1987; *The Philosophy of Mind and Cognition,* Basil Blackwell, 1996 (with David Braddon-Mitchell); his John Locke lectures, *From Metaphysics to Ethics,* Oxford University Press, 1997; and his collected papers *Mind, Method, and Conditionals:* Selected Essays, Routledge, 1998. He is the editor of *Conditionals,* Oxford University Press, 1991; and *Consciousness,* The International Research Library of Philosophy, Dartmouth

Publishing Company, 1998.

5. The → is Jackson's preferred symbol for the ordinary language connective 'if- then'.

6. It needs to be mentioned here that, although Jackson calls it 'Adams' in recognition of Adam's role in bringing the idea into light, he makes it clear that his interpretation of it is entirely his own (See Jackson, 1987, p. 138, note #3). Adams does mention in his early work that for assessing inferences involving indicative conditionals inquiry into conditions of 'justified assertability' (Adams, 1965, p. 172) will be more fruitful than the conditions of truth However, his idea of 'Justified assertability' is quite different from Jackson's idea of "assertibility". Adams' idea is entirely robabilistic in nature and does not include any consideration of the truth-valves of these conditionals. Jackson's idea of "assertibility", on the other hand, combines probabilistic measures with a truth-functional analysis of these conditionals. In his review of Jackson's *Conditionals'* Adams makes the following remark on this issue: "I should say parenthetically that while I am the Adams in question, Jackson graciously (and rightly) absolves me from responsibility for his formulations" (Adams, 1990).

7. I owe this example to my Ph.D. supervisor Prof. Clifton McIntosh.

8. In Jackson's own words, linguistic goals "are goals of language *qua* language, just as telling the time is a goal of a watch *qua* timepiece, as opposed to other goals-like holding down the fluttering pages of a book on a windy day - which can also be achieved by using a watch (as a weight)" (J87, p.98).

9. Appiah (Appiah, 1984, p. 79) argues that 'A but B' does not have the truth-conditions of 'A and B'. This claim, if correct, blocks the conclusion Jackson draws about indicative conditionals from this case.

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